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ABSTRACT

This manual covers study behavior and attitudes and specific study techniques for health profession students, including scheduling, comprehension, memory, and test-taking techniques. Much of the approach emphasizes self-discipline and honesty. Focus is on how students in a health professions program can make their study time more productive and efficient. Learning behavior and habits, daily study practices, class preparation and note taking, comprehension skills, and self-assessment skills are discussed. Techniques outlined include reward systems, reading and other pre-lecture preparation activities, after-lecture reviews, maintenance of concentration, retention of information, use of imagery and conceptual frameworks, learning support groups, formulation of study questions and answers, paraphrasing reading material, building mental networks, understanding terminology, and practice examinations. (TJH)

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MORE-THAN-JUST-AN-ACADEMIC-SURVIVAL KIT

Suggestions and Techniques for Effective Learning

Henry T. Frierson, Jr., Ph.D.

and

Molly Munro, M.A.

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MORE-THAN-JUST-AN-ACADEMIC-SURVIVAL KIT

some suggestions and techniques to increase academic performance for students in health professions programs

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INTRODUCTION

As a student in a health professions program, you have already spent at least 12-16 years in the classroom. More than likely, during those years you have not only learned a lot of material but have also learned a lot about studying. Why, then, have we prepared this manual for you? During the last 12-16 years you may have also, and unfortunately, acquired some counter-productive study habits that have become a regular part of your routine. Now that you are enrolled in a health professions program, your courses will probably be more intense and detail-oriented than those you encountered in either college or other graduate programs. By the end of a semester, you will be expected not only to remember huge amounts of complex information but also to be able to assimilate the facts. This situation, especially to the student new to it, calls for study behavior perhaps different from any he has used before.

This manual covers both study behavior/attitude and specific study techniques. Scheduling, comprehension and memory techniques, and test-taking are discussed. Some of the techniques may be more helpful to some students than to others, but all students can probably benefit by incorporating at least some of the ideas presented here. The manual's content does not pretend to be an all-encompassing final word on studying nor does it provide any "tricks," "schemes," or other ways to make your program unbelievably easy. Nor is the manual a guide for "how to survive with hardly trying". Instead, our purpose is to offer suggestions on how you can make your study time more productive and efficient. Our goal is to help you <u>really learn</u> what you study, so the information will stay with you long after you hand in your exam. Much of the discussion on learning techniques are owed to research

directed by Donald Dansereau and the writing of Richard Fenker (Stop Studying and Start Learning, 1982).

The following is a capsule of the approach suggested to help you increase your learning as well as your academic performance. Much of what follows will be expanded upon in the manual.

First of all, take a mature approach toward your coursework and study to learn the material thoroughly rather than merely to pass a test. If you can apply the material, then you probably can also pass a test related to it. On the other hand, if you study with the sole purposes of passing a test, within a very short period of time you will probably forget most of what you had learned. You may be o\able to survive your courses, but your chances for success afterwards on say a licensure or entrance examination are lessened.

Attend all lectures and prior to each lecture, read the material that is to be covered. If unable to read all the material, you should try to review as much of it as reasonably as possible, and then unfailingly attend all scheduled lectures. Take notes during the lecture and afterwards review them as soon as possible. Try to get in the habit of reviewing your notes the same day you record them.

Finally, each weekend review all the material that was covered during the week. You will find this method will reinforce material you have learned. Subsequently, it will keep you from forgetting much of the information that you learned and will reduce the need for relearning or cramming when preparing for exams.

I. LEARNING BEHAVIOR and HABITS

Diligently attending lectures and reading your text are sound steps towards becoming an effective learner, but day-to-day study habits and techniques greatly effect how successful your studying will be. There are a few things you should seriously consider doing before studying. First, pick a place free from distractions (a room, particular desk or location in the library) which you will use only to study; avoid using this place for anything other than study. This regular workplace will eventually become a stimulus for effective learning -- you will almost automatically find yourself in a mood to study when you go there. You should also decide on a regular time for study and consistently use it for only academic work. That will help shape your study pattern into a regular and effective habit.

SCHEDULES, OR HOW TO AVOID DEFEATING YOURSELF

A word needs to be said here about class attendance. Attending lectures and taking lecture notes reinforces and adds to existing knowledge. From a test preparation standpoint, lectures give you some idea of the content that the instructors view as particularly important. Furthermore, lectures can be particularly useful for clarifying previously read material that you might have found confusing.

To reiterate, for effective learning purposes, you should commit yourself to attend all lectures. There may often be the desire to skip class in an attempt to catch-up on another course. The result of skipping class, though, is often only falling farther behind, so playing catch-up becomes a cycle that, as time goes on, becomes increasingly difficult to break. Moreover, attempts to catch up usually end in frustration and a lost battle with little, if anything, gained. Making and

keeping to a schedule is probably the best way to stay out of this no-win situation.

You should consider establishing a weekly schedule that takes into account class-time, meals and all other obligations. Accordingly, you should set daily specific goals for each course. Be sure the goals are specific, reasonable and fairly short-term. For example, instead of telling yourself you are going to study anatomy, say you are going to read chapter three in the next two-and-a-half hours. Be honest with yourself and assign your deadlines according to your capabilities at that moment. Although you may often want to push yourself, you do not want to put yourself in the position of attempting to do what is impossible (e.g., reading 100 pages of biochemistry in one hour).

The schedule can be either flexible or rigid. In following a rigid schedule, all time and activities are recorded and carried out for the amount of time specified, whether or not you fully complete the task. With a flexible schedule, which is recommended for most students, if you do not reach the scheduled goal within the allotted time, you may continue until you do; or you may schedule periods that can be used for catching up when necessary. If you finish early, however, you may move to another subject or take a break.

If you usually need some form of rest or recreation during the day (e.g., a nap or racquetball), be sure to write it into the schedule. You want to use all your time constructively and not waste any of it by pondering what you will do next. At the end of every day, evaluate the schedule for the next day and make adjustments to accommodate any appointments or other activities which have come up. At the same time, you should review the day's schedule to see how well you kept to it. If you were off-schedule, be honest with yourself and decide whether the

problem is with the schedule itself (unrealistically demanding) or with your self-discipline.

Individual assignments can also be finished more efficiently and less painfully if put on a schedule. For busywork or projects neither overly large nor requiring a great deal of thought, set a deadline for the entire project's completion. For larger or more involved projects, such as research papers, systematically break them down into their smaller components and assign deadlines for the individual phases. For example, a schedule for writing a major paper could look like this: Week 1 -- research the topic and gather resources; Week 2 -- take notes from sources and construct an outline; Week 3 -- write the rough draft; Week 4 -- revise and write the final copy. Naturally, this schedule would be longer or shorter depending on the scope of the project.

Remember, be ambitious when setting up your goals, but not overly so. If you make your schedule impossible, when you fail to keep to it you are likely to become frustrated with the whole schedule system and abandon it. On the other hand, if you are realistic (but still challenging) in your goals, the schedule can serve as an incentive and self-check and a means to promote effective learning. In addition, a schedule provides you with the feeling that you are in control of your time rather than an array of events being in control of you.

REWARD SYSTEM OR HOW TO BEAT PROCRASTINATION

Procrastination can always be a problem. To combat procrastination and to reach goals you have set, try a reward system. In this instance, a reward system is a form of positive reinforcement in which you are both the bestower and recipient of the award. You can use the system for all your studying, but it is particularly beneficial when you find yourself having to work on something which

does not at all hold your interest. At such times, you need something extra to motivate you. For example, if you are having trouble keeping yourself working on the draft of a paper, tell yourself when you finish writing the section (or maybe even two pages), you can do something else for thirty minutes. The reward can be anything that you have been wanting to do; e.g., exercise, take a nap, even housecleaning or other studying. Do not, however, let the rewards get out of hand; they should become neither distracting nor too time-consuming. Also, if you do not finish the task do not allow yourself the reward. This reward approach, when used with a scheduling system, can help you to increase your efficiency greatly. If you use the system regularly, you can even get into a rhythm of studying, for instance: two hours of intense and productive studying followed by a break and two more hours of studying.

II. DAY-TO-STUDYING, CLASS PREPARATION AND NOTE-TAKING

Much of what will be covered in lectures will be entirely new to you and may be presented in unfamiliar and complex terms. This is why day-to-day class preparation and note-taking can be so important. Ideally, you will read all the text and handouts pertaining to the day's lectures before you get to class. Realistically, though, this cannot always happen. Nonetheless, you should try to cover as much material before class as possible; at least preview all the materials for the day's lecture.

BEFORE CLASS: READ OR PREVIEW

Reading beforehand makes the information presented in the lecture more understandable and more easily assimilated. Prior reading establishes a framework

to which the learning of the material presented in the lecture can be attached. Pre-lecture review and lecture attendance augment each other. More often than not, questions you discover in your review will be answered by the lecture, and likewise, the review will reduce the chance of misunderstanding the lecture. If you are under severe time constraints, reviewing, or skimming (only as a last resort, however) the chapter or handouts for subject headings and italicized or bold words, will at the least give you an idea of the material's content. Consequently, those procedures will better your initial understanding of the lecture than if you had done no reading at all.

DURING CLASS: NOTES

During lectures, make an effort to take clear and concise notes. In writing your notes, use the instructor's words, not yours; you will be less likely to miss or confuse key points. Place asterisks in your notes by sections which you do not understand and leave gaps (that are to be filled in later) wherever you missed information. One technique to consider is to use one side (e.g., the right side) of a spiral or loose-leaf notebook for recording lecture notes. On the other side, you can fill in any missing information or add additional notes or material as needed. This can result in a more complete and comprehensive set of notes for review purposes.

AFTER CLASS: REVIEW

After class, you should review your notes and mark or highlight what had been emphasized by the lecture. At this time, you should also attempt to fill in the gaps and clear up sections which you did not understand during the lecture. This can be done by referring to the text or consulting with the instructor or your

classmates. It is highly improbable that you will be able to write down everything the lecturer says; therefore, the less time between the lecture and your review the better. Shortly after the lecture you will still remember clearly the specifics of the lecture, much of which you may have missed in your notes.

When you review your notes immediately after class, you will be able to see what you left out and also any inconsistencies. But, if you wait even until only the end of the week for this review, many of the finer points of the lecture will be forgotten, and you will have a more difficult time correcting, even understanding your notes. Consequently, the less time between the lecture and your first review can make a tremendous difference in your overall learning of the material. Then at the end of each week, review that week's lecture notes, text and/or handout notes. In this comprehensive review you should try to tie together all the information covered during the week.

If you follow this review plan, within one week you will have covered the week's material four times: 1) reading prior to the lecture, 2) attending the lecture, 3) daily review, and 4) weekend review. This repeated exposure to the material will significantly solidify your understanding of the material, and strengthen your retention, and substantially increase the amount of information learned. In short, after having followed this weekly study scheme, it is unlikely that you will forget much of the material. Consequently, exam preparation will be more a matter of reinforcing what you know rather than completely relearning the material or needing to resort to cramming techniques. Thus, another major advantage of using this review plan is that it lessens the likelihood of your falling behind and then needing to cram when preparing for tests.

ACTIVE LEARNING: HOW TO KEEP YOUR CONCENTRATION

Although the majority of your studying will require reading and comprehension of large amounts of complex material, if you simply read your text or notes, your concentration will probably wane quickly. To avoid this, you must keep yourself involved in and aware of what you are studying -- you need to be an active participant rather than a passive observer. In other words, under proper conditions, it is best to think about or reflect on what you are studying. When you are actively studying, you will be able to concentrate more on studying and thus less prone to distractions and daydreaming.

There are several strategies for active studying. For instance, while reading you can underline key words and phrases, subject headings, and concepts or terms which seem particularly important or which you do not understand. In the margin of your text or notes, you can make notations which either raise questions or make connections to what you already know. Once you have read a chapter or reviewed a section of your notes, make an outline of the material or paraphrase, either orally or in writing, what you have read. You can also formulate questions from the material or try to teach it to someone else, e.g., a real or imaginary classmate. Finally, you can draw or diagram the relationships between various parts of the subject. You can apply these strategies to help you to interact with what you are reading and thereby promote deeper forms of learning. Get in the habit of not only reading, but also looking for questions or challenges in the assignments.

Another and quite effective way to enhance learning when reading material is to identify the author's main ideas and then attempt to identify evidence that back-up those ideas. Then try to interrelate those main ideas to your previous knowledge or experiences. This effort is a key in promoting deep learning. Deep learning implies a solid understanding of content and is related to high academic

achievement. This is a learning approach that you should be actively striving toward. It is a hallmark of effective learning.

When your concentration lapse despite your efforts toward active studying, do not immediately quit the task at hand. Instead, see if you need to revise your goal; you may have tried to do too much, in which case you may tell yourself you will read at least three more pages before stopping. Sometimes this will be enough to get you back on a productive track. In some situations, however, perhaps because of either fatigue or saturation with the subject matter, you may need to switch to a different subject or take a break. It is important that you be honest with yourself in assessing whether the problem is with you or the goal. Never reward poor concentration or learning behavior, but do reward yourself when you have been productive with breaks or some form of recreation. Finally, try to end all study sessions with a degree of success (completion of a section, chapter or set of problems); it will not only make you that much closer to realizing your goal but also help you to keep a positive attitude toward studying.

RETAINING INFORMATION: HOW TO REMEMBER WHAT YOU HAVE LEARNED

There are a few things more disheartening than to have spent many hours over many weeks diligently studying only to find that you remember little of what you have read. Unfortunately, many students find themselves in this position not because of how long or how much they studied, but because of the way they studied. Memory depends largely on relating new material to what you already know, and thereby creating a chain of inter-related information. While it is possible to memorize facts in isolation from any specific context, the information will not stay with you very long. Three strategies for learning in such a way that you will

retain the material are linking, conceptual frameworks, and imagery, all of which are also forms of active learning.

1. Linking

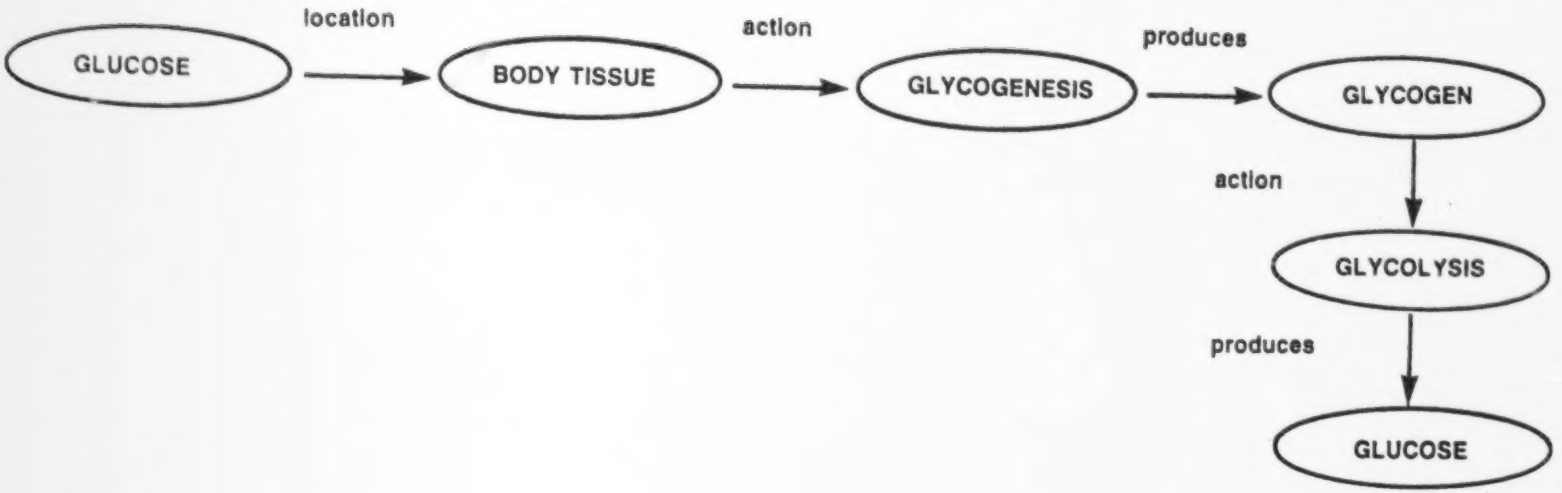
To remember processes or relationships, it is extremely helpful to find a way to link what you already know to what you are trying to learn. You can then draw a diagram which shows how different concepts are linked together. If you are learning a process, the diagram will show the order of actions, or if it is a series of relationships, the diagram will show how various concepts are related, much like a flow-chart. This technique is very effective because pictures or images are more easily remembered than just words or phrases, plus you are also likely to remember yourself in the act of drawing. You must, however, be sure that the linking system accurately depicts the sequence, or you will learn false information. For example, for a student attempting to learn where glucose is stored and how it is converted into glycogen and then back into glucose, the linking system in Figure 1 could be developed.

2. Building conceptual frameworks

Often when reading complex material for the first time, you end up wasting much time rereading the same paragraph because you are overwhelmed by the new terms or the complexity of the material. To avoid this tremendously inefficient use of time, build a conceptual framework for learning the material. First skim the chapter and pay close attention to headings, charts, diagrams, illustrations and examples, all of which will give a basic notion of the chapter's content. This preview should take only a few minutes. If the content is complex, it may be best to write an outline which can be changed

FIGURE 1

An Example of a Linking System
Describing the Storage of Glucose and The Production of Glycogen and Glucose

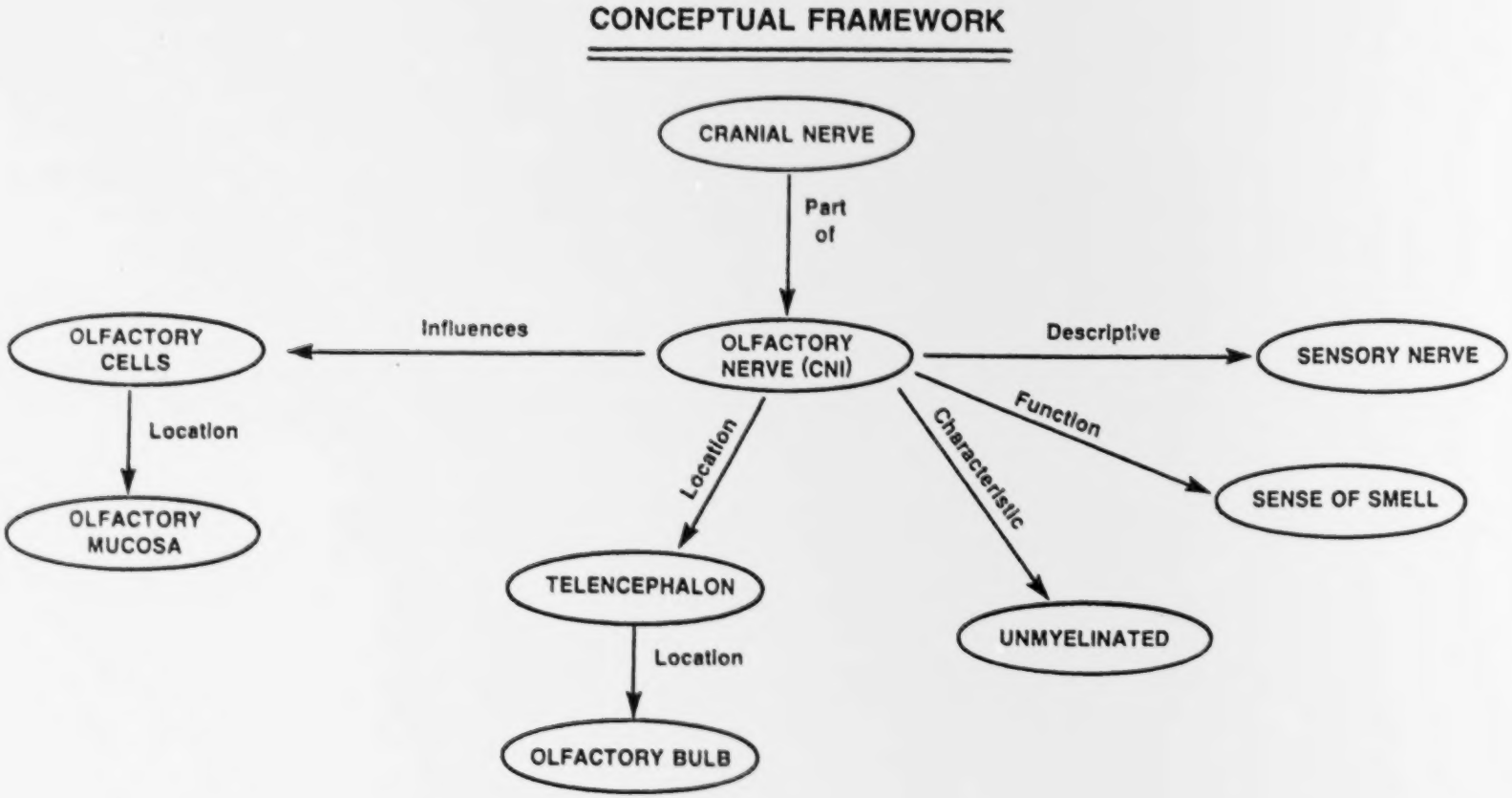


and detailed when you do the actual reading. This written or mental outline then prepares you for the information you will cover in your reading, much as previewing before class enhances your understanding of the lecture. It gives you a conceptual framework (or context) in which the new material will have meaning and on which you can add new related material. This is also a very effective method for getting a broad view of a topic. (See Figure 2 on page 19 for an example of an illustrated conceptual framework.)

3. Imagery

The use of imagery allows you to use your imagination to build mental pictures to promote active learning. Mental pictures are relatively easily and thoroughly remembered and can be a good tool for your memory. It is quite worthwhile to create mental pictures (imagery) of objects, words or scenes that pertain to what you are attempting to learn. When visualizing objects or symbols of concepts, a key is to exaggerate -- either make them very large or very small. You can have fun and make the images bizarre; the more unusual and out of proportion the images are, the more easily they will be remembered. Further, if at all possible, give the images action; this will help bond the links created and more firmly lock them into your memory. Both imagery and conceptual frameworks are methods for elaboration which mean they can be used as foundations on which you can build further knowledge. Thus, once you have created an image, you can expand it to incorporate new material.

FIGURE 2


CONCEPTUAL FRAMEWORK
CRANIAL NERVE
Part of
OLFACTORY CELLS
Influences
OLFACTORY NERVE (CNI)
Descriptive
SENSORY NERVE
Location
OLFACTORY MUCOSA
Location
Function
SENSE OF SMELL
Location
Characteristic
TELENCEPHALON
UNMYELINATED
Location
OLFACTORY BULB

III. COMPREHENSION

The ultimate method for retaining material and perhaps also the ultimate factor in deciding your success, is how well you comprehend what you have learned. Through rote memorization you may be able to remember concepts you do not understand, but unfortunately, for only a short time. Information acquired by rote learning techniques will not be retained nearly as long as that for which you have a full and deep understanding. If you fully understand a concept and can see how it relates to other concepts and principles you have learned, you more than likely will be able to remember it. As a result, you will be more capable of applying it to situations other than the narrow context in which it was first presented. In short, comprehension leads to the ability to generalize and to apply a concept to an ever widening set of circumstances.

When you are first presented with new material you learn it within a narrow framework; you then, ideally, learn how the new concept can be applied in different circumstances or how it relates to other concepts; your understanding deepens. Comprehension also implies a process of organization; as you learn more, your knowledge of the concepts becomes broader and more detailed and organized. In contrast to comprehension, rote memorization is narrow, specific, and inflexible, therefore, not long lasting; you learn concepts and facts without regard to context and lose sight of relationships.

In an effort to comprehend information, you inevitably increase your knowledge level and thus are able to create links and relationships between what you already know and what you are now learning. One of the most important procedures for preparing for a test should essentially be that of deepening comprehension. The

four strategies discussed in the following sections are methods you can use for enhancing your comprehension.

QUESTIONS AND ANSWERS

Formulating questions and answers from the study material and teaching the material to others are both quite effective for testing and increasing your comprehension. Formulating questions forces you to identify important topics, and answering the questions challenges the depth of your understanding. Trying to teach the material to another person creates the same challenge by forcing you to explain the material, not just giving it back verbatim. These two techniques are particularly effective when used in small groups where individuals can share acquired knowledge.

LEARNING SUPPORT GROUPS

If you are able to work with others, and hopefully you can, it is a good idea to establish or join a good study group. Explaining information to others as well as hearing the explanations of others in the group is a form of active learning and is quite effective for memory retention and comprehension. Frequently a group member will explain the material in a way which will make certain concepts understandable which had up to then been unclear. Also, quite often when trying to remember a particular concept, you will remember the discussion your group had on it which will then serve as a spark for your remembering the concept itself. Weekly meetings (e.g., every Saturday) of the group also provide additional exposure to the material which in turn further strengthens your understanding. Five to seven members is a good number for a study group.

With each member serving as a learning resource, the group can also serve as a strong support system for learning, and importantly, also as a source of support from a social and emotional standpoint. You can thus measure your own progress by seeing how your classmates are doing and also developing a sense of camaraderie with your colleagues can be a very important aspect in building a positive and conducive learning environment for yourself.

PARAPHRASING

One way to gain a better understanding of material is through paraphrasing relevant information. This method is particularly useful when you find the material to be relatively difficult. Restating a new idea in terms familiar to you should help you to gain a better understanding of the material and also to associate the material with what you have previously learned. This is also an excellent method for testing your comprehension of a subject; if you find it difficult to paraphrase a specific concept, your comprehension of the matter is probably weak.

ACTIVE IMAGERY

In addition to the form of imagery discussed earlier, there is another, active imagery, in which you visualize yourself actually doing what you are studying. Active imagery is a powerful technique for understanding how parts of a problem form a whole. It is also useful for understanding visual material and procedures which are difficult to explain verbally, even when using paraphrasing or question and answer techniques.

BUILDING MENTAL NETWORKS

It is easier to comprehend complex material when you first attempt to understand its various parts. In most instances, comprehension depends on building mental networks where terms or concepts are linked in some manner. In building comprehension networks you should first underline or highlight ideas, concepts or terms you think are important and then list them on the left hand side of a piece of paper. Reread the passage carefully and pay close attention to those terms you marked. If you learn anything new about the underlined terms, make a note in the right hand column of the piece of paper. Now organize the terms and concepts into an illustrated network (this is an advanced form of linking). Place the terms that are closely related near each other and draw lines between those terms that are linked in some important way. Label the links that connect them. If you are unsure how some of the terms are related, review the relevant sections of the text or notes, or ask someone to assist you in clarifying the concepts you wish to learn. Figure 2 is an example of a basic illustrated network that fully describes the olfactory nerve of the first cranial nerve (CNI).

IV. SELF-ASSESSMENT IN LEARNING

The Learning Hierarchy: Discovering How Much You Know

All during the semester, as well as right before exams, it is a good idea to assess how much you have learned in order to discover your weak and strong areas. You can do this by using the six level hierarchy below which ranges from the most basic (knowledge of terms) to the most advanced (the ability to apply knowledge).

1. Knowledge of Terminology: Do you have sufficient knowledge of the terms: What are the new terms you have come across and can you explain, as

well as define them? As recommended earlier, you may find it useful to write down unfamiliar terms to ensure that you will learn them.

2. Knowledge of Facts (Concepts): Have you identified the major concepts? Can you explain them in writing or verbally?

3. Knowledge of Rules and Principles: Have you linked concepts together in such a manner that you know the major rules or principles of the subject matter?

4. Skills in Using Learned Procedures: When applicable, can you actually carry out the procedures related to information you have learned? Attempt to duplicate procedures either by acting them out or mentally via imagery.

5. Ability to Make Translations: Can you explain to others what you have learned in such a way that they can comprehend the subject matter? See if you can teach the information to others.

6. Ability to Apply Knowledge: Can you accurately apply what you have learned to a real-life situation? If you can, you have fully mastered the topic.

The higher you are on the hierarchy, the better your knowledge of the material. To be well grounded in 2 (knowledge of facts), you must establish a solid foundation in 1 (knowledge of terms). You can use the list as a guide for evaluating your progress in learning subject content.

PRACTICE EXAMS

A very effective way to asses your learning progress is to use practice exams on a regular basis. On practice tests, mark (e.g., with a check or asterisk) the items you know and then check the percentage of those items you answered correctly. In addition, review the related content of items you could not answer correctly. Be sure to find out why you missed any items which you felt you had known. Also, for any questions that you guessed correctly, review the relevant course material so you have a good understanding of why your answer was correct. Additionally,

review the related content of items you could not correctly answer. Do not, however, fall into the trap of suing old exams as a main component of your studying. Rote memorization of old exams does not add to what you have already learned and is counter-productive; the time you use memorizing questions and answers could be better spent increasing your understanding of the material. Still, old exams can be an effective means for self-assessment and for sharpening test-taking skills, if used for those purposes.

V. TEST-TAKING

After you have studied hard, effectively and regularly all semester, you are ready for the final exam. Having fully learned the material is by far the most important and obvious variable in your test performance, but there are others which will affect the outcome of the test. First of all, your attitude during the exam: you should try to remain calm and confident while taking the test, particularly if you feel you prepared adequately for it; extreme nervousness and anxiety during an exam will lessen the chance of your doing well on the exam even if you studied sufficiently. When confronted with a difficult item, do not panic; for the moment, skip those you are unsure of or that have unrecognizable material. Go back to them once you have worked through the entire exam.

For multiple-choice tests (any many of your exams will be of this type)), you should keep the following suggestions in mind:

1. Read the stem of the questions carefully.
2. Do not assume anything that is not directly stated in the stem. It

provides all the information you need to answer the question. By all means, do not make the stem more specific or complicated than it is.

3. Identify and mark key words in the question stem. This will help prevent your misreading it.
4. Look immediately for the correct response among the four to five alternatives, but <u>be sure to look at all the alternatives before making your selection</u>. If you are certain of your choice, record it on the answer sheet.
5. If you are not sure of the correct response, cross out those choices that you know are incorrect; otherwise they might distract or confuse you.
6. Then, place a check by responses you feel are or may be correct.
7. Naturally, you want to reduce your chance for error. With blind guessing on a five option item, you have only a 20% chance of getting the correct answer. By eliminating two or three choices, you increase your chances for selecting the right answer to 33.3% or 50% respectively.
8. As a repeat of numbers of 5 and 6, on items for which you are absolutely sure of the correct answer, place checks next to possible correct responses and cross out those that you are certain are incorrect; then move on to the next item. The rationale is to keep yourself from becoming too involved and anxious over one item, because the process is time-consuming and psychologically counterproductive. After you have worked through the test, it often is beneficial to return to an item you have initially found difficult. You may find that the questions you have completed can provide cues in helping you to remember or to deduce the correct answer for those items you at first could not answer.

9. Do not hesitate to select answers based on your hunches. Hunches, fortunately are related to knowledge, although incomplete but knowledge nonetheless. Thus, if you consistently choose your hunches, you have a better than 50% chance of selecting the correct answers for items of which you are uncertain.

Keep in mind that a test is just one means to allow you to demonstrate what you have learned. Thus, after preparing in the ways suggested, you should expect to do well, not just pass. By all means, be confident in the amount of knowledge you have acquired and assume that your performance will reflect excellence. After all, you will be well prepared if you have applied effective learning techniques.

VI. CONCLUSION

Much of the study approach outlined in this manual centers on one thing: self-discipline and honesty. You need to be honest with yourself in monitoring your own study progress. If you do not reach a goal, ask yourself why: was the goal unrealistic or did you not keep on track? Recognize your weak points and then either diminish them if possible or work around them. If you are successful in this, then there is a good chance that you will begin studying better and longer than you did before, which will, in turn, make your chances for high achievement all the greater.

Although there is no sure-and-fast method to absolutely guarantee academic success, nor will all the methods presented in this manual be equally effective for all the students who try them. However, the methods presented are almost sure bets

to help you facilitate learning and subsequently enhance your academic performance. Consequently, the surest way to give yourself the best chance for success is to try out the various methods suggested and after reflecting on those processes employed, make those which work best for you a regular part of your study routine. You will be pleased with the results. Best wishes in your strivings for knowledge and academic success.